Important Advances in Clinical Medicine

Epitomes of Progress—Obstetrics and Gynecology

The Scientific Board of the California Medical Association presents the following inventory of items of progress in obstetrics and gynecology. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, both as to scientific fact and important clinical significance. The items are presented in simple epitome and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist the busy practitioner, student, research worker or scholar to stay abreast of these items of progress in obstetrics and gynecology which have recently achieved a substantial degree of authoritative acceptance, whether in his own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on Obstetrics and Gynecology of the California Medical Association and the summaries were prepared under its direction.

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Constitutional Precocious Puberty

FEMALE PRECOCIOUS PUBERTY is defined as the initiation of breast development before the age of 8 years, or menarche before the age of 9 years. Precocious puberty is incomplete when only a single pubertal change occurs with no evidence of an effect of sex steroids elsewhere in the body. Precocious pubertal changes may be either isosexual, in which the secondary sex characteristics are in agreement with the organic determinants of sex, or may be heterosexual, in which the secondary sex characteristics are in disagreement with the organic determinants of sex. Isosexual precocious puberty may be related to causes outside of the central nervous system, referred to as pseudoisosexual precocious puberty or to causes within the central nervous system referred to as true isosexual precocious puberty.

The most common cause of precocious pubertal development is constitutional precocious puberty, a form of true isosexual precocious puberty. This disease is characterized by the premature attainment of adult function of the hypothalamic-pituitary-ovarian axis with the cyclic release of gonadotropins leading to adult levels of endogenous estrogen which in turn produces isosexual pubertal changes which may progress to menstruation and even ovulatory menstrual cycles. The cause of constitutional precocious puberty is not known. Symptoms may appear at any age, but are rare in the first year of life. The progression of symptoms may be rapid or slow, and rare spontaneous remissions have been reported. Under the influence of estrogen, growth is accelerated initially and the patients for a time are taller than their peers; however, the acceleration of linear height is quickly terminated as the distal epiphyses fuse prematurely and the patients' final height is less than their peers. The disease is not a detriment to the patients' general health but is the source of considerable emotional unrest, for both patients and their families. The most important long-term sequelae is the short stature.

Constitutional precocious puberty is a diagnosis arrived at by exclusion. Heterosexual causes of precocious puberty may be excluded by clinical observation. Incomplete forms of precocious puberty may be eliminated by the appearance of more than one pubertal change or the rapid advancement of height either recorded on a growth chart or the pronounced advancement of bone age compared with chronological age. Causes of pseudoisosexual precocious puberty are associated with prepubertal levels of gonadotropins and causes of true isosexual precocious puberty with adult levels of gonadotropins. When organic brain disease is